

REMARKS

This application has been carefully reviewed in light of the Office Action dated October 4, 2007. Claims 1 to 8, 10 and 12 to 18 remain in the application. Claims 1 and 16 to 18 are the independent claims. Reconsideration and further examination are respectfully requested.

Claims 1 to 5, 7, 8, 10, 12, 13 and 15 to 18 were rejected under 35 U.S.C. § 103(a) over U.S. Patent No. 5,911,139 (Jain) in view of U.S. Publication No. 2002/0136449 (Park) and U.S. Patent 6,961,463 (Loui). Claims 6 and 14 were rejected under § 103(a) over Jain, Park and Loui in view of U.S. Patent No. 7,101,144 (Davis). Reconsideration and withdrawal of the rejections are respectfully requested.

The present invention generally concerns selectively storing an input image in a database. First search information associated with an input image is acquired on the basis of information input by a user, and feature data contained in the input image is acquired as second search information. An original data file corresponding to the input image is searched for using the first and second search information.

According to one aspect of the invention, if the original data file is not found in the database, the input image is converted into outline data which indicates a visual representation of a tracing of the outline of a character or a graphic object, and the outline data is stored in the database.

By virtue of this arrangement, it is ordinarily possible to subsequently reproduce the input image without having to store the entire input image in the database.

Referring specifically to claim language, independent Claim 1 is directed to an image processing method implemented by a computer for selectively storing an input image in a database. The method includes (a) acquiring first search information associated with the input image on the basis of information input by a user, (b) acquiring feature data contained in the input image as second search information, (c) searching for an original data file corresponding to the input image in the database by using the first and second search information, (d) converting the input image into outline data and storing the outline data in the database, in a case where the original data file corresponding to the input image is not found in said step (c), and (e) declining to store the input image data into the database, in a case that the original data file corresponding to the input image is found in said step (c). The outline data indicates a visual representation of a tracing of the outline of a character or a graphic object.

Independent Claims 16, 17 and 18 are directed to a system, a program, and a computer-readable medium, respectively, substantially in accordance with the method of Claim 1.

The applied art is not seen to disclose or suggest the features of the present invention, and in particular is not seen to disclose or suggest at least the feature of converting an input image into outline data which indicates a visual representation of a tracing of the outline of a character or a graphic object.

As understood by Applicants, Jain is directed to content-based search and retrieval of visual objects. Primitives are defined and registered, and object attributes are extracted from an image. A specific set of visual features are processed, and a

corresponding feature vector is defined for use in content-based similarity scoring. See Jain, Abstract.

Page 3 of the Office Action asserts that Jain (Column 9, lines 40 to 52) discloses converting an input image into vector data and storing the vector data in a database. Specifically, the Office Action equates Jain's "feature vector" with vector data.

However, Jain's feature vector does not correspond to outline data which indicates a visual representation of a tracing of the outline of a character or a graphic object. Rather, Jain's feature vector is simply a set of values or amounts. In particular, Jain defines a feature vector as follows:

Each primitive-extraction routine takes a preprocessed image, and, depending on the properties of the image, computes a specific set of data, called feature data, for that primitive. Feature data is data that typically represents some image feature that is extracted by one primitive. The feature data typically is a mathematical characterization of the visual feature. A feature vector is a concatenation of a set of feature data elements corresponding to a set of primitives in a schema. Jain, Column 12, lines 24 to 34.

Thus, Jain's feature vector is simply a concatenation of a set of values or mathematical amounts, rather than converted image data. Accordingly, Jain is not seen to disclose or suggest outline data indicating a visual representation of a tracing of an outline at all, much less the feature of converting an input image into outline data indicating a visual representation of a tracing of the outline of a character or a graphic object.

Since Jain does not disclose this feature, Jain also cannot disclose the attendant benefits of such an arrangement. For example, since Jain's feature vector can not reproduce input image data, Jain must also store the entire input image along with its feature vector. See Jain, Column 9, lines 49 to 52.

Park, Loui and Davis have been reviewed and are not seen to remedy the above-noted deficiencies of Jain.

Therefore, independent Claims 1, 16, 17 and 18 are believed to be in condition for allowance, and such action is respectfully requested.

The other claims in the application are each dependent from the independent claims discussed above, and are believed to be allowable over the applied references for at least the same reasons. Because each dependent claim is deemed to define an additional aspect of the invention, however, the individual consideration of each on its own merits is respectfully requested.

No other matters being raised, it is believed that the entire application is fully in condition for allowance, and such action is courteously solicited.

Applicant's undersigned attorney may be reached in our Costa Mesa, California office at (714) 540-8700. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,



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